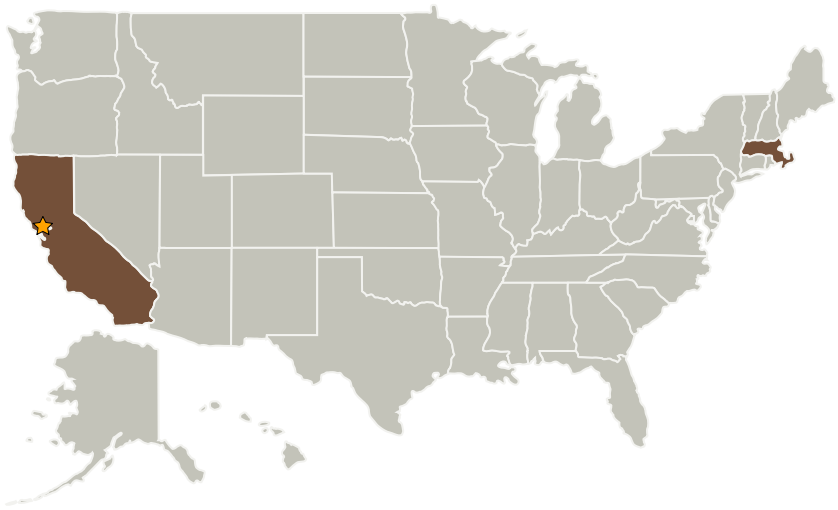
Flight Systems Monitor, Phase I

Completed Technology Project (2006 - 2006)

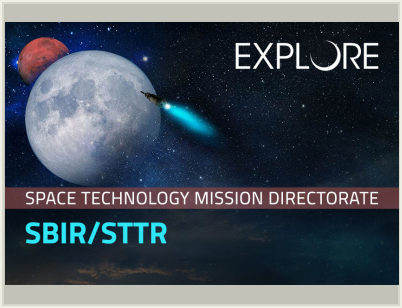
Project Introduction

This SBIR Phase I project will develop the Flight System Monitor which will use non-intrusive electrical monitoring (NEMO). The electronic system health of components and systems will be measured and tracked by carefully monitoring and analyzing of power usage and start up and shut down transients. In depth analysis of this data enables real time assessment of system and component functioning and identifies potential system and component faults and failutes. The system is light weight, small and inexpensive because the system requires only a sensor at the mains power input and uses existing power wiring to carry data. Phase I will involve ground measurements on the control and power systems of a small UAV. Phase II will involve measurements and analysis of a system in flight.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
NEMOmetrics Corp.	Supporting Organization	Industry	Boston, Massachusetts



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations	
California	Massachusetts

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX03 Aerospace Power and Energy Storage
  - TX03.3 Power Management and Distribution
    - TX03.3.1 Management and Control